WE CLAIM:

1. A method of beneficially regulating gastro-intestinal motility in a subject comprising administering to said subject a therapeutically effective amount of an exendin or an exendin agonist.

2. A method according to claim 1 wherein said beneficial regulation of gastrointestinal motility comprises reducing gastric motility.

3. A method according to claim 1 wherein said beneficial regulation of gastrointestinal motility comprises delaying gastric emptying.

4. The method according to claim 1, 2 or 3 wherein said exendin is exendin 3.

5. The method according to claim 1, 2 or 3 wherein said exendin agonist is exendin-4.

6. The method according to claim 1, 2 or 3 wherein said subject is undergoing a gastrointestinal diagnostic procedure.

7. The method of claim 6 wherein said gastro-intestinal diagnostic procedure is a radiological examination.

8. The method of claim 7 wherein said gastrointestinal diagnostic procedure is magnetic resonance imaging.

9. A method according to claim 1, 2 or 3 wherein said gastric motility is associated with a gastrointestinal disorder.

10. A method according to claim 9 wherein said gastrointestinal disorder is a spasm.

11. A method according to claim 10 wherein said spasm is associated with a disorder selected from the group consisting of acute diverticulitis or a disorder of the biliary tract or a disorder of the Sphincter of Oddi.

12. A method of treating postprandial dumping syndrome in a subject comprising administering to said subject a therapeutic effective amount of an exendin or exendin agonist.

13. A method of treating postprandial hyperglycemia comprising administering a therapeutically effective amount of an exendin or exendin agonist.

14. The method according to claim 13 further comprising administering a therapeutically effective amount of an amylin or an amylin agonist.

15. The method according to claim 14 wherein said amylin agonist is ^{25}Pro,^{28}Pro,^{29}Pro-h-amylin.

16. A method of treating postprandial hyperglycemia which is a consequence of type 2 diabetes mellitus comprising administering a therapeutically

effective amount of an exendin or an exendin agonist.

17. A method of treating type 1 diabetes mellitus comprising administering a therapeutically effective amount of an exendin or an exendin agonist.

18. A method of treating impaired glucose tolerance comprising administering a therapeutically effective amount of an exendin or an exendin agonist.

19. A method of treatment for ingestion of a toxin comprising: (a) administering an amount of an exendin or an exendin agonist effective to prevent or reduce the passage of stomach contents to the intestines; and (b) aspirating the contents of the stomach.

20. The method according to claim 1, 2 or 3 wherein said exendin agonist is selected from a peptide compound of the formula:

1 5 10
Xaa_1 Xaa_2 Xaa_3 Gly Thr Xaa_4 Xaa_5 Xaa_6 Xaa_7 Xaa_8

15 20
Ser Lys Gln Xaa_9 Glu Glu Glu Ala Val Arg Leu

25 30
Xaa_{10} Xaa_{11} Xaa_{12} Xaa_{13} Leu Lys Asn Gly Gly Xaa_{14}

35
Ser Ser Gly Ala Xaa_{15} Xaa_{16} Xaa_{17} Xaa_{18}-Z (SEQ. ID. NO. 38)

wherein Xaa_1 is His, Arg or Tyr;
Xaa_2 is Ser, Gly, Ala or Thr;
Xaa_3 is Asp or Glu;

Xaa_4 is Phe, Tyr or naphthylalanine;
Xaa_5 is Thr or Ser;
Xaa_6 is Ser or Thr;
Xaa_7 is Asp or Glu;
Xaa_8 is Leu, Ile, Val, pentylglycine or Met;
Xaa_9 is Leu, Ile, pentylglycine, Val or Met;
Xaa_{10} is Phe, Tyr or naphthylalanine;
Xaa_{11} is Ile, Val, Leu, pentylglycine, tert-butylglycine or Met;
Xaa_{12} is Glu or Asp;
Xaa_{13} is Trp, Phe, Tyr, or naphthylalanine;
Xaa_{14}, Xaa_{15}, Xaa_{16} and Xaa_{17} are independently Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine, N-alkylpentylglycine or N-alkylalanine;
Xaa_{18} is Ser, Thr or Tyr; and
Z is -OH or $-NH_2$;
with the proviso that the compound does not have the formula of either exendin-3 [SEQ. ID. NO. 1] or exendin-4 [SEQ. ID. NO. 2] and pharmaceutically acceptable salts thereof.

21. The method according to claim 1, 2 or 3 wherein said exendin agonist is selected from a peptide compound of the formula ~~[SEQ. ID. NO. 36]~~:

Xaa_1 Xaa_2 Xaa_3 Gly Thr Xaa_4 Xaa_5 Xaa_6 Xaa_7 Xaa_8
Ser Lys Gln Xaa_9 Glu Glu Glu Ala Val Arg Leu
Xaa_{10} Xaa_{11} Xaa_{12} Xaa_{13} Leu Lys Asn Gly Gly Xaa_{14}
Ser Ser Gly Ala Xaa_{15} Xaa_{16} Xaa_{17} Xaa_{18}-Z (SEQ. ID. NO. 39)

wherein Xaa_1 is His or Arg;

Xaa_2 is Ser, Gly;

Xaa_3 is Asp or Glu;

Xaa_4 is Phe or naphthylalanine;

Xaa_5 is Thr or Ser;

Xaa_6 is Ser or Thr;

Xaa_7 is Asp or Glu;

Xaa_8 is Leu or pentylglycine;

Xaa_9 is Leu or pentylglycine;

Xaa_{10} is Phe or naphthylalanine;

Xaa_{11} is Ile, Val or tert-butylglycine;

Xaa_{12} is Glu or Asp;

Xaa_{13} is Trp or Phe;

Xaa_{14}, Xaa_{15}, Xaa_{16} and Xaa_{17} are independently Pro, homoproline, thioproline or N-methylalanine;

Xaa_{18} is Ser or Tyr; and

Z is -OH or $-NH_2$;

with the proviso that the compound does not have the formula of either exendin-3 [SEQ. ID. NO. 1] or exendin-4 [SEQ. ID. NO. 2] and pharmaceutically acceptable salts thereof.

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add 2